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Author Manuscript

Int Perspect Sex Reprod Health. Author manuscript; available in PMC 2014 January 22.

Published in final edited form as:

Int Perspect Sex Reprod Health. 2011 March ; 37(1): 16–23. doi:10.1363/3701611.

What differentiates method switchers from discontinuers? An examination of contraceptive discontinuation and switching among Honduran women

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INTRODUCTION

Contraceptive discontinuation occurs when a woman ceases to use her current method of contraception. Contraceptive discontinuation is a common occurrence, though rates vary widely by country. A summary of 18 countries using Demographic and Health Survey (DHS) data found that between 20% and 50% of users of reversible modern methods of contraception discontinued their method during the first 12 months of use.¹ Similarly, a more recent study of DHS data from eight countries found the 12 month discontinuation rates to range between 18 and 49%.² Contraceptive discontinuation can be “active,” as when a woman needs to visit a clinic to have her IUD removed, or “passive,” requiring no extra effort, such as when an appointment for a re-injection is missed or forgotten, or a pill prescription is not re-filled. Data from a wide range of countries show that contraceptive methods requiring passive discontinuation, such as oral contraceptive pills, condoms, injectables such as Depo-Provera, and traditional methods, have higher rates of discontinuation when compared to methods that require active discontinuation, such as the IUD and implants.^{2–6}

Contraceptive discontinuation is an important public health concern as it has been shown to contribute to unplanned pregnancy and unwanted births, which in turn, contribute to increased maternal, neonatal, and infant morbidity or mortality.^{7–9} As a consequence, discontinuation rates can be utilized as a measure of family planning service quality, with high rates of discontinuation interpreted as a sign of missed opportunities to promote and sustain contraceptive use.^{10,11}

Notably, not all women who discontinue a contraceptive become nonusers; some women switch to another more (or less) effective method. The women who continue to want to avoid a pregnancy and discontinue without switching are at an increased risk of unwanted or mistimed birth. High quality services, including having a range of methods available and good counseling on methods, can increase the likelihood that women switch rather than discontinue all use. Thus, all-method discontinuation, as opposed to method-specific discontinuation, incorporates switching and more accurately captures the role of discontinuation for assessing family planning service delivery and quality.^{12,13} A recent

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examination of oral contraceptive discontinuation and switching behavior in 19 countries found that, on average, 35% of women discontinuing use of contraception for reasons of method dissatisfaction switched to another method within three months, leaving the authors to suggest that more attention should be paid to the issue of method switching as opposed to simply method discontinuation.³

Whether a woman discontinues a particular contraceptive method and switches to another method is likely due to a number of factors. For example, women who are no longer in need of contraception are not likely to switch or re-initiate use. Such women may no longer be with their partner (due to marital disruption, separation, or death of a spouse), no longer be able to become pregnant (infecund), or may want to become pregnant. Previous research estimated that reduced need accounts for 7% to 20% of discontinuation of all reversible methods.¹³

Other demographic factors such as age, parity, and union status are most frequently associated with discontinuation, while education, area of residence and household income are less consistently so.^{5,14} However, urban women and women with higher levels of education and socioeconomic status are more likely to switch methods when they do discontinue, whereas older age is related to a decreased likelihood of switching.^{5,6} Side effects and health concerns are one of the most common reasons women give for discontinuing a method.^{1,14} Though the experience of side effects has been shown to increase the likelihood of method discontinuation,^{15,16} it is not known if the experience of side effects is associated with whether or not a woman switches to another method.

Research on service quality and discontinuation has produced mixed results.^{11, 17–21} Though few studies have looked specifically at service quality and method switching, a recent study of switching behaviors in Bangladesh found that women who had more contacts with family planning outreach workers were less likely to experience discontinuation and nonuse.²² Furthermore, while the characteristics of methods will influence discontinuation, they should not affect switching behavior as long as other types of contraception are available and accessible. For example, research from Morocco found that women who lived near facilities that offered three or more methods were more likely to switch than were women who lived near facilities that did not offer as many method choices.¹⁹

The overall goal of this analysis is to examine the differences between women who reinitiate contraceptive use immediately after a discontinuation (i.e., switch methods) and women who discontinue use and do not immediately begin another method (i.e., experience an episode of nonuse). We assess a number of factors related to contraceptive use and discontinuation, as identified by previous studies; these include demographic characteristics, fertility desires, perceived service quality, experience with the method, and experience of side effects while using the method. We also collected information on women's contraceptive decision-making and are thus able to include some variables related to the degree of engagement with partner and community in discussions of family planning use and decisions to discontinue. We aim to characterize method switchers in contrast to discontinuers/non-switchers and to use the comparisons to identify programmatic implications.

The study uses data from Honduras, a small Central American country with a population of approximately 7.3 million people. Modern contraceptive use is relatively high in Honduras, with a prevalence of 56.4% among married women ages 15–49 (all information in this section from Secretaría de Salud [Honduras], 2006).²³ Female sterilization is the most common modern method (21.2%), followed by the reversible methods of interest in this study; injectables (13.8%) oral contraceptive pills (11.3%) and the IUD (6.6%). The public sector supplies almost half of the country's family planning services, with the Secretary of

Health system of hospitals, CESAMOs (Health Centers with Doctors and Dentists), and CESARs (Rural Health clinics, staffed by nurses) supplying contraception to 44% of users. The Honduran Family Planning Association (Asociación Hondureña de Planificación de Familia or ASHONPLAFA), the local International Planned Parenthood Federation affiliate, is the country's main private provider of family planning services, serving 25% of users. Of note, pharmacies are the most common source of supply for oral contraceptive pills (35.3%).

METHODS

Data

The data for this analysis come from a panel study on the determinants of contraceptive discontinuation conducted in four urban areas of Honduras: Tegucigalpa, San Pedro Sula, Santa Rosa de Copán/La Entrada, and Gracias. The data were collected in two rounds, a baseline interview and a follow-up interview after one year. The baseline data were collected between October–November 2006 from exit interviews held with eligible women attending a family planning appointment in selected health facilities in which they received the injection, oral contraceptive pill, or IUD. Selected clinics for the study included seven Secretary of Health clinics (CESAMOs), one Secretary of Health hospital, and five Honduran Family Planning Association (ASHONPLAFA) clinics. Eligible women were aged 15–44, and were either new or continuing users of one of the three aforementioned reversible methods. There were no enrollment quotas by type of method. All eligible, consenting women were interviewed during the observation period until a total of 200 interviews were obtained from each urban area. Overall 800 interviews were completed. Follow-up data were collected after one year with the same women as interviewed at baseline. Interviewers used contact information provided by the respondents at baseline to locate and arrange for the follow-up interviews. Follow-up interviews were conducted in October–December 2007. A total of 84% of women who participated at baseline (n=671) were found and interviewed at the one-year follow-up.

The baseline survey questionnaire collected information on demographic characteristics, birth histories, previous use of contraception, perception of service quality at clinic appointment, motivation to avoid pregnancies, and the family planning decision-making environment. The follow-up questionnaire collected information on the use of contraception during each month since the baseline interview (using a contraceptive calendar), experience of and reactions to side effects during the follow-up period, and updates on demographics, fertility motivations, and the decision-making environment.

Some women contributed more than 12 months of contraceptive behavior in the follow-up period, based on the timing of their interviews. For this analysis, we consider all discontinuations that occurred in the first 12 months of the study only. There were 16 women who discontinued use of a method in month 12; for all 16 women, we have information on whether they switched methods or experienced an episode of nonuse. The analysis sample includes only women who experienced any discontinuation in the follow-up period (n=273).

Authorization for the study was obtained from the Institutional Review Board (IRB) of the University of North Carolina at Chapel Hill, the Honduran Secretary of Health, and ASHONPLAFA. Written consent was obtained from each participant at baseline and follow-up.

Variables

The data for the dependent variable on discontinuation behavior were extracted from the contraceptive calendar used to collect month-by-month information on contraceptive use

during the study period. The dependent variable is constructed from the group of women who discontinued their baseline method during the first 12 months of the study period (n=273; 41% of the follow-up sample). Women are considered “switchers” if they began a method within a month of discontinuing the baseline method. Women are considered “discontinuers” if they did not use any other method during the follow-up period (including because of pregnancy) or reinitiated the use of the same or another method after experiencing at least one month of nonuse. The dependent variable is coded “1” for switching and “0” for discontinuation with an episode of nonuse.

Independent variables for the analysis include demographic characteristics; fertility desires; service quality, method characteristics, the experience, perception, and reaction to side effects; and reason for discontinuation. These variables are listed in Table 1 along with how they are coded for analysis.

At the baseline exit interview, women were asked a number of questions about the quality of counseling and service provision during their appointment. Selected indicators of service quality are shown in Table 1. A number of questions on women's experiences at the clinic appointment were not selected for inclusion in the study because they showed little variation among responses (less than 10% responding in the negative); these included the client's level of satisfaction with the cleanliness of the clinic, the level of privacy, the way she was treated by the provider, and overall satisfaction with care received.

At follow-up women were asked about side effects during the study period, beginning with whether they experienced any side effects and the number and type of side effects experienced. The complete list of side effects included abdominal pain, amenorrhea, dizziness, facial spotting, heavy bleeding, infections, irregular bleeding, nausea/vomiting, weight gain, and weight loss. The side effects selected for inclusion in the analysis were mentioned by at least 50 women. It is worth noting that women with no side effects are in the null category for side effects and communication about side effects variables.

Analysis

A cross-tabulation is constructed to compare a number of characteristics (i.e., the independent variables) by whether women switched methods or discontinued all methods. A test of cross-tabulations is then conducted to assess the relationships between the dependent variable and each independent variable using Pearson's χ^2 . The degree of association is assessed at a 90%, 95%, and 99% level of significance. Independent variables with at least a 90% degree of association with the dependent variable are included for consideration into the multivariate analysis.

A further descriptive analysis is carried out to investigate attitudes and behaviors of women discontinuing the baseline method by side effect experienced. The analysis is restricted to the most common side effects experienced (headaches, amenorrhea, heavy bleeding). Similar to the cross-tabulation described previously, a test of cross-tabulations is conducted to assess the relationships between the dependent variable and independent variables of interest for this sub-sample using Pearson's χ^2 . Again, the degree of association is assessed at a 90%, 95%, and 99% level of significance.

A multivariate logistic regression is conducted to assess differences between women who switched methods and women who discontinued and experienced an episode of nonuse. Variables considered for the analysis are those that showed significance in the bivariate analysis. Associations between predictor variables are examined prior to building the multivariate model using Spearman's ρ . Correlation between predictor variables is also assessed prior to running the regression. In any pair of variables with a correlation greater

than ± 0.6 , a decision was made as to which variable to eliminate from the model. Union status is captured in the null categories for partner variables. Women not experiencing side effects are part of null categories. All analyses were run using STATA version 10.1 (STATA Corp., College Station, TX, United States).

RESULTS

A total of 273 women (41%) from the full panel sample discontinued using their baseline method during the first 12 months of the study. Compared to the full panel sample, the 273 women who discontinued were more often not in union at follow-up and were new users of the method at baseline (results not shown). Table 2 presents characteristics of the full panel sample by whether women continued using their baseline method throughout the 12 month study period ($n=398$) or whether they discontinued use of the baseline method ($n=273$). A large difference in these two groups of women was seen in the proportions of women not currently in union (7.3% of continuers and 15.7% of discontinuers), women who were new to the method (45.0% and 53.1%, respectively), and women who used the injectable at baseline (68.8% and 77.7%, respectively). Women who discontinued were also slightly more likely to be younger, at a lower parity, and from a rural area, as compared to their counterparts who continued with their baseline method.

Table 3 divides the discontinuers into women who switched to another method ($n=117$) and women who discontinued using contraception for one month or more ($n=156$). As the table shows, there are only a few variables in which a significant difference is not found. A few findings are worth noting: women who switched are more likely to be younger and at a lower parity than women who discontinued. A greater percentage of women who switched experienced side effects, particularly side effects that interfered with daily activities or relationships with their partner, than women who discontinued. However, a smaller percentage of switchers experienced amenorrhea while using their baseline method than the discontinuers. Another interesting finding is that a significantly greater percentage of switchers discussed side effects with two or more people, their partner, or a health worker, than did women who discontinued; this may be a consequence of these women experiencing more side effects. Women who switched were likely to switch to one of the other methods included in this analysis: pills accounted for 37% of switches, injectables 21%, and the IUD 14% (results not shown). Also common was switching to traditional methods (14%) and condoms (13%).

A further descriptive analysis to examine the attitudes and behaviors of women who discontinued the baseline method and who experienced the same side effect shows that there are a number of significant differences between women who switched to another method and women who did not, particularly with regards to health-seeking behavior, discussing side effects, and in making the decision to stop using the method (Table 4). However, results should be interpreted with caution due to small sample sizes. Among discontinuers experiencing amenorrhea ($n=66$), women who switched methods were significantly more likely to have sought help from a clinic or health worker and to have discussed side effects with two or more people than were women with amenorrhea who discontinued use. For women experiencing heavy bleeding ($n=64$), switchers were significantly more likely than discontinuers to have discussed the side effects with two or more people, with their partner specifically, and to have discussed the decision to stop using their baseline method with their partner before making the decision to discontinue. Among discontinuers who experienced headaches ($n=82$), the only significant difference between switchers and discontinuers was in the percentage of women who discussed stopping the baseline method with their partner before making the decision to stop. The results indicated that there were no significant

differences by perceived severity of the side effect. It is possible that further significant differences could be detected with larger sample sizes.

A number of variables were not included in the multivariate model due to high correlation with other variables; these included experience of side effects during the study, discussion of side effects with two or more people, discussion of side effects with partner, and discussion of side effects with a health worker. In a multivariate analysis, fewer of the indicator variables maintain significance with the dependent variable than in the bivariate analysis, as shown in Table 5. Of demographic variables, only area of residence remains significant, and indicates that women in urban areas are almost 2.6 times more likely to have switched methods than to discontinue all methods. New and recent adopters are, respectively, 2.3 and 3.5 times more likely to have switched methods than discontinue all use as compared to women who were using for a longer period. As in the bivariate comparison, experiencing amenorrhea was associated with a reduced likelihood of switching methods. However, while heavy bleeding was significantly related to switching in the bivariate analysis, in the multivariate context, the reverse was true (with a p-value of 0.076). In particular, women who experienced heavy bleeding were somewhat more likely to discontinue than switch as compared to women who did not experience heavy bleeding. The effect of side effects and related behaviors may be affected by the inclusion of women with no side effects in the null categories of these variables. Women who sought help with side effects from a clinic or health worker and women who discussed stopping the method with their partner before making a decision to stop were also significantly more likely to have switched to another method.

CONCLUSION

Contraceptive discontinuation was high for women in the study population, as more than four out of 10 women discontinued the use of their baseline method within the 12-month study period. Nearly 43% of these women then switched to another method without experiencing an episode (one month) of nonuse. The analysis found that there were significant differences by demographics, the experience of side effects, discussing the decision to discontinue, and in the main reasons for discontinuation between switchers and discontinuers.

There were some limitations to the analysis. One limitation is that there is right and left censoring of the data for the periods before and after the study period. The focus of the analysis is on the discontinuation event and what happened in the next month, as a result there is also censoring of the data due to analytical constraints. For example, women who were categorized as “switchers” may not have continued using the new method for longer than a single month, or the index month following discontinuation of the baseline method. Likewise, women labeled as “discontinuers” may have reinitiated or switched methods after a lapse of one month or more, in effect becoming “switchers.” Some of these issues could be addressed with a larger study population and longer period of observation.

In the literature, successful switching is also assessed for the first three months after the discontinuation event, even though pregnancies can occur during this period (for example, as assessed in Ali and Cleland).³ However, the use of a one-month episode may not significantly affect results: Research from the 2002 U.S. National Survey of Family Growth found that most switching occurs in the first month after discontinuation; the probability of resuming use of contraception after discontinuation was 72% in the first month, only increasing to 76% by three months.²⁴

Another limitation is that switching behavior, rather than duration of contraceptive use was assessed in this analysis. It is possible that a woman who discontinued the baseline method early in the study period and then switched to another method may have subsequently discontinued; this woman may have had fewer months of contraceptive use than another woman who discontinued and did not adopt another method at month 11. With the data available from only a one-year period, it is not possible to examine this level of depth of use, though we do know that the mean time until discontinuation of the baseline method was very similar for both groups of women: 6.0 months for switchers and 6.4 months for discontinuers.

Despite these limitations, a number of interesting findings emerged from the study. Multivariate analysis found that women living in urban areas were more likely to have been “switchers” than “discontinuers.” There are a number of potential factors contributing to this finding, including the fact that more women from urban areas were using IUDs, which require a decision to discontinue and an opportunistic visit to a clinic; as well as the fact that women from urban areas were likely to benefit from easier access to family planning services, including a better supply and broader variety of providers, and perhaps even higher diversity in available methods. Limited access to services may also be prohibitive to method switching if women are not encouraged to seek help from a clinic or health worker when experiencing side effects.

In fact, of all variables related to side effects, treatment seeking behavior (sought help from a health clinic) was found to be most significantly related to method switching. Though side effects may be responsible for contributing to method discontinuation, their relationship with subsequent method use is less clear. Our findings suggest that only the experience of amenorrhea has a negative impact on switching behavior. This too suggests an active approach to discontinuation, though with the reverse effect, as it is often in response to the amenorrhea that new methods are not immediately initiated. Formative qualitative work in Honduras with current and previous users of contraception indicates that women discontinue when experiencing amenorrhea for two main reasons: to determine their pregnancy status and to re-establish what are considered “healthy” menstrual patterns. In the current study, amenorrhea was most commonly experienced by users of the injectable. Such findings highlight an opportunity for providers to counsel and educate about amenorrhea during the initiation of the injectable and to discuss the adoption of non-hormonal barrier methods with women who otherwise may “take a break” from contraception because they want to determine whether or not they are pregnant.

Finally, another of the interesting findings from the study is in the significant influence of discussing the option to discontinue with the partner, before making the decision to discontinue the method. The study did not, however, determine what it is about discussions with the partner (and others) that are supportive of switching behavior. Do discussions represent a reinforcement of the decision to use family planning and encouragement to try a different method (i.e., is it the quality of the discussion)? Or does the indicator represent the value of being in supportive relationships, and being able to confide troubles and discuss family planning options with a partner/spouse or others (i.e., is it the quality of the relationship)? Definitive answers to these questions are beyond the scope of the present research, yet offer interesting avenues for further investigation. Based on our findings, however, we propose that the discussions lead to a greater likelihood of switching and thus should be encouraged and supported by Honduran family planning programs seeking to improve the likelihood of contraceptive continuation.

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Table 1

Definition of predictor variables

Variable	Coding for analysis
Demographic characteristics	
Age	15–24; 25–34; 35–44
Education	None; Primary; Secondary or higher
Parity	Univariate and bivariate: 0–1; 2–3; 4+
	Multivariate: 0–1, 2+
Union status ^a	Married or in union; Not in union
Residence ^a	Rural; Urban
Monthly household income	Lower if < 3000 Lempiras (USD\$158); Middle if between 3000–5000 Lempiras (USD\$158–264) Higher if > 5000 Lempiras (USD\$264)
Fertility desires	
	Desires another child within 2 years, “soon” or “now”
	Desires another child after two years or don't know when
	Desires no more children or is undecided
Service quality	
Had all questions answered by provider	Yes; No
Received info. on how to use method effectively	Yes; No
Received info. on advantages/disadvantages of method	Yes; No
Ever informed about side effects of their method	Yes; No
Method characteristics	
Length of use at baseline	Used method >1 year; Used method 1 year; New to method on day of appointment
Method used at baseline	IUD; Injectable; Pill
Experience with side effects	
Had side effects during study period	Yes; No
Had 2 or more side effects during study period	Yes; No
Type of side effect experienced	
Abdominal pain	Yes; No or no side effect
Amenorrhea	Yes; No or no side effect
Dizziness	Yes; No or no side effect
Headaches	Yes; No or no side effect
Heavy bleeding	Yes; No or no side effect
Weight gain	Yes; No or no side effect
Felt side effects interfered with daily activities	Yes; No or no side effect
Felt side effects interfered with relationship with partner	Yes; No or no side effect
Self-medicated or took home remedies	Yes; No or no side effect
Sought help from a clinic or health worker	Yes; No or no side effect
Communication with others	
Discussed side effects with 2 or more people	Yes; No or no side effect
Discussed side effects with partner	Yes; No or no side effect

Variable	Coding for analysis
Discussed side effects with family member(s)	Yes; No or no side effect
Discussed side effects with friends	Yes; No or no side effect
Discussed side effects with health worker	Yes; No or no side effect
Discussed stopping BL method with partner before making decision to discontinue	Yes; No
Main reason for discontinuation	<p>Reduced Need (want to become pregnant, infrequent sex, partner not present, marital dissolution or separation)</p> <p>Problems with method (became pregnant while using, side effects, health concerns, method difficult to use, want a more effective method)</p> <p>Other (partner does not approve, access issues, missed appointments, method not available, "other")</p>

^a Assessed at follow-up; otherwise all demographic, fertility desires, service quality, and method characteristics variables measured assessed at baseline

Table 2

Percentage distribution of study population, by selected characteristics, surveyed at baseline and follow-up, Honduras, 2006–2007, N=671

Characteristic	Continued Baseline method (n=398) %	Discontinued Baseline Method (n=273) %
Age		
15–24	45.5	49.5
25–34	46.0	43.2
35–44	8.5	7.3
Education		
None	6.0	5.5
Primary	65.1	63.7
Secondary or higher	28.9	30.8
Parity		
0–1	41.7	47.6
2–3	42.7	41.4
4+	15.6	11.0
Union status ^{a,***}		
Married or in union	92.7	84.3
Not in union	7.3	15.7
Residence ^a		
Rural	20.8	25.3
Urban	79.2	74.7
Monthly household income		
Lower	47.5	50.9
Middle	30.4	27.1
Higher		
Length of use at baseline [*]		
Used method >1 year	34.1	27.5
Used method 1 year	20.9	19.4
New to method	45.0	53.1
Method used at baseline ^{**}		
IUD	25.4	14.3
Injectable	68.8	77.7
Pill	5.8	8.1

^a Assessed at follow-up; otherwise all measures assessed at baseline

^{*} p<0.1;

^{**} p<0.05;

^{***} p<0.01

Table 3

Women's contraceptive use status after discontinuation of baseline method, by selected characteristics, Honduras, 2006–2007; N=273

Independent variables assessed at baseline	Switched N=117 %	Discontinued N=156 %
Demographic characteristics		
Age **		
15–24	58.1	43.0
25–34	37.6	47.4
35–44	4.3	9.6
Education **		
None	3.4	7.0
Primary	57.3	68.6
Secondary+	39.3	24.4
Parity **		
0–1	54.7	42.3
2+	45.3	57.7
Union Status **		
In union	89.7	80.1
Not in union	10.3	19.9
Residence ***		
Rural	16.2	32.0
Urban	83.8	68.0
Monthly household income		
Lower	45.3	55.1
Middle	29.9	25.0
Higher	24.8	19.9
Fertility desires		
Fertility desires ***		
Desire another child < 2 years	6.8	19.2
Desire another child > 2 years or DK when	55.6	39.1
Desires no more children	28.2	35.9
Undecided	9.4	5.6
Service quality		
Had all questions answered by provider ***	72.7	50.0
Received info. on how to use method effectively	52.1	43.6
Received info. on advantages/disadvantages of method *	44.4	34.6
Ever informed about side effects of their method	69.2	65.4
Method characteristics		
Length of use at baseline ***		
Used method >1 year	15.4	36.5

Independent variables assessed at baseline	Switched N=117 %	Discontinued N=156 %
Used method 1 year	23.1	16.7
New to method	61.5	46.8
Method used at baseline **		
IUD	20.5	9.6
Injectable	73.5	80.8
Pills	6.0	9.6
Experience with side effects		
Had side effects during study period ***	89.7	69.9
Had 2 or more side effects during study period ***	60.7	41.7
Type of side effect experienced		
Abdominal pain ***	23.9	11.5
Amenorrhea *	18.8	28.2
Dizziness	18.8	18.6
Headaches	30.8	29.5
Heavy bleeding **	30.8	18.0
Weight gain	20.5	14.1
Felt side effects interfered with daily activities ***	54.7	35.3
Felt side effects interfered with relationship with partner ***	41.0	23.7
Self-medicated or took home remedies	23.1	20.5
Sought help from a clinic or health worker ***	55.6	28.2
Communication with others		
Discussed side effects with 2 or more people ***	57.3	32.1
Discussed side effects with partner ***	63.3	37.2
Discussed side effects with family member(s)	35.0	26.3
Discussed side effects with friends *	18.0	10.9
Discussed side effects with health worker ***	48.8	26.9
Discussed stopping BL method with partner before making decision to discontinue ***	86.3	60.3
Main reason for discontinuation of BL method ***	(n=114)	(n=156)
Reduced need	3.5	44.9
Problems with method	87.7	48.7
Other	8.8	6.4

*
p<0.1;

**
p<0.05;

p<0.01

Table 4

Women's contraceptive use status after discontinuation of baseline method among women experiencing the same side effect, by selected characteristics, Honduras, 2006–2007

Discontinuation with amenorrhea (N=66)	Switched n=22 %	Discontinued N=44 %
Side effects interfered with daily activities	59.1	43.2
Side effects interfered with relationship with partner	27.3	20.5
Self-medicated or took home remedies *	13.6	34.1
Sought help from a clinic or health worker **	63.6	36.4
Discussed side effects with 2 or more people *	95.5	79.6
Discussed side effects with partner	68.2	50.0
Discussed side effects with family member(s)	40.9	31.8
Discussed side effects with friends	9.1	9.1
Discussed stopping baseline method with partner before making decision to discontinue	90.9	77.3
Discontinuation with heavy bleeding (N=64)	Switched n=36 %	Discontinued N=28 %
Side effects interfered with daily activities	75.0	75.0
Side effects interfered with relationship with partner	72.2	71.4
Self-medicated or took home remedies	19.4	21.4
Sought help from a clinic or health worker	72.2	57.1
Discussed side effects with 2 or more people **	100.0	85.7
Discussed side effects with partner ***	80.6	46.4
Discussed side effects with family member(s)	38.9	42.9
Discussed side effects with friends	19.4	25.0
Discussed stopping baseline method with partner before making decision to discontinue ***	97.2	67.9
Discontinuation with headaches (N=82)	Switched n=36 %	Discontinued N=46 %
Side effects interfered with daily activities	66.7	71.7
Side effects interfered with relationship with partner	41.7	47.8
Self-medicated or took home remedies *	36.1	56.5
Sought help from a clinic or health worker	58.3	45.7
Discussed side effects with 2 or more people	94.4	89.1
Discussed side effects with partner	69.4	63.0
Discussed side effects with family member(s)	33.3	43.5
Discussed side effects with friends	19.4	15.2
Discussed stopping baseline method with partner before making decision to discontinue **	88.9	69.6

*
p<0.1;

**
p<0.05;

p<0.01

Table 5

Odds ratios (OR) from multivariate logistic regression of method switching versus discontinuation of use, by selected characteristics, Honduras, 2006–2007; N=270^a

Independent variables	OR	C.I.	
Demographic characteristics			
Age			
15–24	REF		
25–34	0.75	0.34–1.65	
35–44	0.86	0.20–3.81	
Education			
None	REF		
Primary	1.11	0.24–5.10	
Secondary+	1.91	0.38–9.66	
Parity			
0–1	REF		
2+	0.96	0.43–2.14	
Residence			
Rural	REF		
Urban	2.58	1.17–5.68	**
Fertility desires			
Desire another child < 2 years/undecided	REF		
Desire another child > 2 years/don't know when	1.60	0.68–3.76	
Desire no more children	1.20	0.45–3.20	
Service quality			
Had all questions answered by provider	1.63	0.79–3.36	
Received info. on advantages/disadvantages of method	0.88	0.43–1.78	
Method characteristics			
Length of use at baseline			
Used method > 1 year	REF		
Used method 1 year	3.45	1.30–9.16	**
New to method	2.26	0.97–5.25	*
Method used at baseline			
IUD	REF		
Injectables	0.84	0.29–2.46	
Pill	0.60	0.14–2.66	
Experience with side effects			
Had 2 or more side effects during study period	1.26	0.58–2.73	
Type of side effect experienced			
Abdominal pain	1.54	0.56–4.19	
Heavy bleeding	0.44	0.18–1.09	*
Amenorrhea	0.34	0.14–0.81	**
Side effects interfered with daily activities	1.22	0.53–2.81	

Independent variables	OR	C.I.	
Side effects interfered with relationship with husband	0.96	0.41–2.24	
Sought help from a clinic or health worker	2.01	1.01–3.99	**
Communication with others			
Discussed side effects with friends	1.05	0.44–2.49	
Discussed stopping method with partner before making decision to discontinue	3.16	1.43–6.96	**
Main reason for discontinuation			
Reduced need/other	REF		
Problems with method	6.05	2.68–13.66	**
Pseudo R ²			0.29
Log likelihood			–129.91

^aThree women have missing information on main reason for discontinuation and are dropped from the analysis

*
p<0.1;

**
p<0.05;

p<0.01